FUNSHTEYN, Lev Vladimirovich; VASIL'YEVA, Ye.I.; GRACHEVA, N.D.; OCHINSKAYA, G.V.; PROTAS, L.R.[deceased]; RABINOVICH, R.M.; SHCHERBAN', E.I.; SIPOVSKIY, P.V., red.; RULEVA, M.S., tekhn. red.

[Atlas of the pathological anatomy of acute experimental radiation sickness] Atlas patologicheskoi anatomii ostroi luchevoi bolezni v eksperimente. Leningrad, Medgiz, 1961. 216 p. (MIRA 15:2)

(RADIATION SICKNESS) (ANATOMY, PATHOLOGICAL--ATLASES)

FUNSHTEYN, L.V.; OCHINSKAYA, O.K.; SHCHERBAN', E.I.

Morphological changes in the internal organs of mice following a single high dose of X irradiation. Radiobiologiia 1 no.3:440-445 '61. (MIRA 14:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii, Leningrad.
(X RAYS--PHYSIOLOGICAL EFFECT)

FUNSHTEYN, L.V.

Method for histoautoradiography of biopsy material. Med.rad. 6 no.4:15-19 '61. (MIRA 14:12)
(AUTORADIOGRAPHY) (BIOPSY)

LEYTES, F.L.; FUNSHTEYN, L.V.

Effect of Naftalan petroleum extract on changes in the epidermis after local α-irradiation. Biul. eksp. biol. i med. 51 no.3: 121-125 Mr '61. (MIRA 14:5)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii i TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR I.G.Rufanovym.

(SKIN) (PETROLEUM—THERAPEUTIC USE)
(ALPHA RAYS—PHYSIOLOGICAL EFFECT)

L 16176-63 EWT(l)/EWT(m)/BDS/ES(j) AMD/AFFTC/ASD AR/K

ACCESSION NR: AT3002380 S/2930/62/000/000/0197/0206

AUTHOR: Funshteyn, L. V.; Sipovskiy, P. V. (Leningrad) 57

TITLE: Morphological changes in sudden radiation death and in so-called radiation shock death 19

SOURCE: K voprosam ranney diagnostiki ostroy luchevoy bolezni; sbornik nauchnykh rabot. Kiev, Medgiz USSR, 1962, 197-206

TOPIC TAGS: morphological change , large X-irradiation dose , internal radiation, sudden death, leucocyte , organ , radiation shock, X-ray , Cobalt-60, survivability

ABSTRACT: Morphological changes after irradiation and up to time of death were studied in 30 animals (rabbits and guinea pigs). 7 animals were exposed to single total X-irradiation of 800 or 500 r, 17 animals were exposed to X-irradiation doses fluctuating from 1500 to 9840 r, 5 animals were internally irradiated with Co^{60} (2.5 to 20 microcuries/kg), and 1 animal was internally irradiated with Cs^{137} (35 microcuries/kg). All animals died within the following periods: 7 during irradiation, 6 the 1st day, 13 at 1-2.5 days, and 4 at 3.5-12 days. Organ tissues were investigated and leucocyte counts made. Results

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L 16176-63

ACCESSION NR: AT3002380

show that an accumulation of leucocytes is found in the lungs and spleen of X-irradiated animals dying the first day except for the internally irradiated animals. In X-irradiated animals with increased survivability the number of leucocytes in the organ tissues drops progressively and after 3.5-12 days no leucocytes can be found. Tissue investigations reveal morphological changes in the kidneys, liver, lungs, bone marrow, spleen, and lymph nodes in the form of blood circulatory and dystrophic-necrotic disturbances. These changes coincide or approach morphological manifestations of acute radiation sickness. Dariation shock and conditions leading to death within 2 days after exposure can be equated morphologically with a fulminant form of acute radiation sickness. In radiation shock the most immediate causes of death are the various lung changes which restrict the respiratory function. Morphological changes in the organs of all animals studied are practically alike and cannot be identified by time of death. Orig. art. has: 6 figures, 1 table.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 28May63 ENCL: 00

Card 2/2 SUB CODE: AM NO REF SOV: 010 OTHER: 013

S/241/63/008/001/001/006
D296/D307

AUTHORS: Vorob'yev, Ye.I. and Funshteyn, L.Y.

TITLE: Results of research in the field of radiobiology in Public Health Institutions in 1961

PERIODICAL: Meditsinskaya radiologiya, v. 8, no. 1, 1963, 38-45

TEXT: The authors review the results of research in the field of radiobiology carried out in 1961. Most of the topics were concerned with the pathogenetic mechanisms underlying the development of radiation sickness, e.g. changes in the plasma proteins, and in tissue metabolism. Some of the authors reviewed, however, studied the carcinogenetic effects of different types of radiation; changes in the immunological response; and in the hormone and vitamin balance after exposure to radiation. The article underlines the wide range of problems covered by the investigations, the high technical standards and the highly developed cooperation between the different departments. Among the shortcomings the authors criticize the inadequate attention paid to the quantitative aspects of radiobiology and

Card 1/2

the fact that none of the departments concerned applied kibernetical methods to the elucidation of radiobiological problems. No specific references are quoted.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR (Central Scientific Research Institute of Medical Radiology, Ministry of Health of the USSR)

SUBMITTED: September 22, 1962

Card 2/2

VOROB'YEV, Ye.I.; [illegible], I.V.

Resolution of the Central Committee of the Communist Party of the Soviet Union and Council of Ministers of the U.S.S.R. "On measures for further development of biological science and improving its relation to practice" and [illegible] in the development of biology. Med. rad. 8 no.[illegible]:3-[illegible] '63. (MIRA 17:4)

1. Iz TSentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR.

VAVILIN, G.I.; FUNSHTEYN, L.V.; SHCHERBAN', E.I.

Histoautoradiographic study of the distribution of phthivazid labelled with radicactive carbon in the lung, liver and spleen. Probl. tub. 42 no.3:74-79 '64. (MIRA 18:1)

1. Leningradskiy nauchno-issledovatel'skiy institut tuberkuleza (direktor - prof. A.D.Semenov) i TSentral'nyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut (direktor Ye.I.Vorob'yev), Leningrad.

L 56549-65

ACCESSION NR: AP5010353 UR/0205/65/005/002/0282/0284

AUTHOR: Funshteyn, L. V.

TITLE: Possibility of artificially inducing planocellular metaplasia of sebaceous glands in irradiated skin of rabbits

SOURCE: Radiobiologiya, v. 5, no. 2, 1965, 282-284

TOPIC TAGS: animal, rabbit, gamma-irradiation, X-irradiation, single radiation dose, irradiation effect, sebaceous gland, skin, tissue, metaplasia, scarlet red

ABSTRACT: In experiments staged on adult rabbits, the ears of some animals were gamma-irradiated (Co-60 source, 170 r/min) with a 4 kr dose and the ears of others were X-irradiated (90 kv, 10 ma, filter 1 mm Al, focal length 23 cm, 32.2 r/min) with a 3.6 kr dose to determine the effect of irradiation on tissue metaplasia. Following gamma-irradiation scarlet red (1 ml) was injected subcutaneously into one ear on the 16th day, and skin tissues were taken for histological investigation from both ears for the next 5 days. Following X-irradiation scarlet red (1 ml) was injected into both animal ears on the 27th day, and skin tissues were investigated at periods of 7, 14, 21, 28, and 58 days later. After irradiation an inflammatory infiltrate was observed in the skin tissues consisting mostly of

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L 56549-65

ACCESSION NR: AP5010353

pseudocosinophils at first and later of histocytes and lymphocytes. In 1-5 days after the injection of scarlet red, sebaceous glands were absent in most of the hair follicles. In cases where sebaceous glands were still present, they were found in the form of large light cells without the cambial elements, surrounded by planocellular epithelium. The planocellular metaplasia of the sebaceous glands developing after scarlet red injection lasted for a long time, and was the same for gamma- and X-irradiation regardless of whether scarlet red was introduced 2 or 4 weeks after irradiation. If metaplasia may be regarded as a form of adaptation to new living conditions on the part of the epithelial tissues, findings show that neither gamma- nor X-irradiation destroyed this inherited adaptive mechanism. Orig. art. has: 1 figure.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut MZ SSSR, Leningrad (Central Scientific-Research Institute MZ SSSR, Leningrad)

SUBMITTED: 22Jul63 ENCL: 00 SUB CODE: LS

NR REF SOV: 010 OTHER: 001

Card 2/2

FUNSHTEYN, L.V.

Possibility for artificial flat cell metaplasia of sebaceous glands in the irradiated skin of rabbits. Radiobiologiia 5 no.2:282-284 '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy rentgenoradiologicheskiy institut Ministerstva zdravookhraneniya SSSR, Leningrad.

FUNSHTEYN, L.V.; VAVILIN, G.I. [Leningrad]

Distribution of sulfur-containing compounds (methionine-S^{35}) in the focus of pulmonary tuberculosis. Arkh. pat. 27 no.9:27-31 '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut (direktor Ye.I. Vorob'yev) Ministerstva zdravookhraneniya SSSR i Leningradskiy nauchno-issledovatel'skiy institut tuberkuleza (direktor A.D. Semenov) Ministerstva zdravookhraneniya RSFSR. Submitted October 9, 1963.

RYAZANOVA, Faina Dmitriyevna, dots.; FUNSHTEYN, Yakov Naumovich, dots.; KHUDOKORMOVA, Rimma Nikolayevna, assistent; LYAKHOVICH, L.S., kand. tekhn. nauk, red.; LEVINA, S.G., red.

[Laboratory manual on metallography and the heat treatment of metals] Laboratornyi praktikum po metallovedeniiu i termicheskoi obrabotke metallov. Minsk, Vysshaia shkola, 1965. 124 p. (MIRA 18:6)

FUNSHTEYN, Ya.N.

Saving electric power at the Minsk Automobile Plant. Mashinostroitel' no.9:35-37 S '60. (MIRA 13:9)
(Minsk--Automobile industry)
(Minsk--Electric power distribution)

ALEKSANDROV, B.I.; MISHIN, P.A.; FUNSHTEYN, Ya.N.; DROZD, S.N.; VASILETS, F.P.

Effect of surface hardening on the strength of the rear semiaxle casing of motor vehicles. Sbor.trud.Inst.mash.i avtom.AN BSSR no.2:29-45 '61. (MIRA 15:3)
(Case hardening) (Motor vehicles—Axles—Testing)

S/122/62/000/012/007/007
D262/D308

AUTHOR: Funshteyn, Ya. N., Engineer

TITLE: Liquid bath cyaniding with application of potassium ferrocyanide $K_4Fe(CN)_6$

PERIODICAL: Vestnik mashinostroyeniya, no. 12, 1962, 66 - 67

TEXT: Experiments with 15 and 20 steels, treated in a bath consisting of 2/3 $CaCl_2$ and 1/3 NaCl (by weight) with 3% (of total weight) addition of $K_4Fe(CN)_6$, were conducted in order to establish the effect of time and temperature of treatment of the depth of the diffusion layer and to determine the concentration of carbon and nitrogen in the cyanided layer. Conclusions: The procedure is quite safe for the working personnel and can be used in medium and high temperature cyaniding processes. To strengthen the surface layer to the depth of 0.05-0.45 mm cyaniding should be executed in an electroplating vat

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Liquid bath cyaniding ... S/122/62/000/012/007/007
D262/D308

(without heat-resisting crucible) at 840 ± 10°C with immediate hardening. because of the cleanness of cyanided surfaces and their small deformation the cyaniding process can be applied after the final mechanical treatment. There are 3 figures and 1 table.

Card 2/2

FUNSHTEYN, Ya.N.

Universal liquid bath for cyaniding without the use of poisonous cyanic salts. Avt.prom. 29 no.1:40-41 Ja '63. (MIRA 16:1)

1. Belorusskiy politekhnicheskiy institut.
(Case hardening)

FUNSHTEYN, Ya.N.; GOTLEYB, B.Ya.; KHUCHINA, S.K.

High-temperature natural-gas cementation. Avt.prom. 29 no.9: 41-42 S '63. (MIRA 16:9)

1. Minskiy avtozavod.

(Cementation (Metallurgy))

ANDRYUSHCHENKO, N.F.; LYAKHOVICH, L.S.; MISHIN, P.A.; FUNSHTEYN, Ya.N.

Surface hardening of the semiaxles of the rear axle of the MAZ-200 and MAZ-205 motortrucks. Avt.prom. 29 no.10:31-33 O '63. (MIRA 16:10)

1. Minskiy avtozavod i Belorusskiy politekhnicheskiy institut.

L 63016-65 EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) Pf-4 KAM/
ACCESSION NR: AP5015968 UR/0113/65/000/006/0040/0041
629.11.011.6:539.633

AUTHORS: Lyakhovich, L. S.; Mishin, P. A. (deceased); Funshtoyn, Ya. N. 31 29 B

TITLE: Strengthening of low-carbon steel sheets by the method of strip hardening

SOURCE: Avtomobil'naya promyshlennost', no. 6, 1965, 40-41

TOPIC TAGS: strip hardening, strip quenching, steel sheet, steel sheet property/St 3 steel, 10KP low carbon steel, 20KP low carbon steel, 25 low carbon steel, 15GS low carbon steel, 14KhGS low carbon steel, 19KhGS low carbon steel

ABSTRACT: To determine the strengthening effects of strip quenching on steel sheet, the strength, stiffness and impact strength of sheet steel specimens (213 x 213 mm) were experimentally determined for untreated specimens and specimens with 15-mm wide hardened strips (61 mm apart in both directions) which were produced by high frequency electric heating and sorbitic phase quenching. Specimens of low carbon steels St3, 10KP, 20KP, 25, 15GS, 14KhGS, 19KhGS were tested. It was found that the tensile strength increased by factors of 1.5-2 (from 38 to 68 kg/mm^2 for St3; 37-77 for 10KP and 20KP; 58-125 for 19KhGS) with corresponding decrease in δ (from 30, 33, and 21% to 7, 3, and 2% respectively for St3, 10KP and

Card 1/2

L 63016-65

ACCESSION NR: AP5015968

2

19KhGS). The stiffness, which was measured by checking the central deflection of perimeter-supported sheets due to central loadings at 0.5-ton intervals, was found to increase by factors of 1.5-2. The impact strength was measured by repeated loads (0.67 kg) at the center of the sheets. It was found that the impact strength increased by factors of $\approx$ 2 (14 494 blows to failure for treated versus 6346 blows for untreated St3; 29 500 versus 15 650 for 15GS) for sheets 3-mm thick. It was concluded that strip strengthening of steel sheet permits thinner sheets and consequent significant material savings in industrial applications. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: Belorusskiy politekhnicheskiy institut (Belorussian Polytechnical Institute); Minskiy avtozavod (Minsk Automobile Factory)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 000 OTHER: 000

Card 2/2

L 12860-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HW

ACC NR: AP5027913 SOURCE CODE: UR/0133/65/000/011/1041/1042

AUTHOR: Lyakhovich, L. S.; Mishin, P. A.; Funshteyn, Ya. N.

ORG: none

TITLE: Strengthening of tubes and other hollow cylindrical articles by the circumferential quenching method

SOURCE: Stal', no. 11, 1965, 1041-1042

TOPIC TAGS: high strength steel, plasticity, steel microstructure

ABSTRACT: Experiments were made on thin walled tubes (87 × 2.5) of steel 20 and (73.5 × 20) of steel 15 with chemical composition (in %):

Table 1

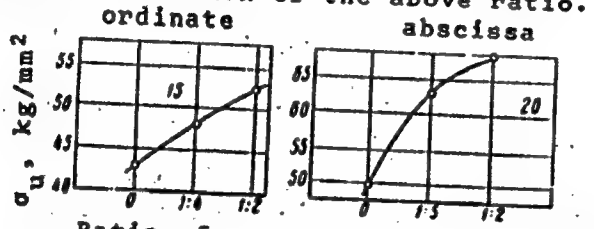
Steel	C	Mn	Si	Cr	S	P
20	0.20	0.5	0.17	0.12	0.020	0.021
15	0.14	-	0.31	-	0.034	0.016

UDC: 621.785.6 : 621.9.462

Card 1/3

L 12860-66
ACC NR: AP5027913

Specimens of 500 mm length were heated to the hardening temperature range (960-980°C) for 4 sec by circumferential inductors having active coil widths of 20 mm. The tubes were then quenched in a water spray (cooling time--5 to 6 sec); i. e., partially quenched portions (15 mm) were alternated with unquenched portions. The ratio of quenched to unquenched lengths varied from 1:5 to 1:2 (the interlengths of the unquenched sections were respectively 75, 60, 45 and 30 mm). The strengths of these processed thin walled tubes were determined for steels 15 and 20, and plotted as a function of the above ratio.



Ratio of quenched to unquenched portions

Strength increases with a decrease in the ratio. A 1:0 ratio would approach the ultimate strength values reported in table 1. Microstruc-

Card 2/3

L 12660-66

ACC NR: AP5027913

tures revealed that the unquenched tube had a predominantly ferritic-pearlitic matrix and after hardening, pseudopearlitic. As-quenched hardness ranged between 27 to 32 R_C (262 to 297 VHN). The plasticity drop which occurs may be overcome by alternating hardened strips with unhardened sections. The authors' final conclusion was that an economy could be achieved with this process by means of a 20 to 30% lowering in wall thickness. Orig. art. has: 1 figure, 2 tables.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 000

Card 3/3

ACC NR: AP7002444 SOURCE CODE: UR/0219/66/000/012/0067/0069

AUTHOR: Voroshnin, L. G.; Lyakhovich, L. S.; Funshteyn, Ya. N.

ORG: Belorussian Polytechnic Institute (Belorusskiy politekhnicheskiy institut)

TITLE: Boronizing of steel using boron-containing powder mixtures

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 12, 1966, 67-69

TOPIC TAGS: boronizing, ~~boronized layer, boronized steel~~ BORON STEEL, METAL POWDER, CORROSION RESISTANT STEEL

ABSTRACT: The process of boronizing steel with boron-containing powders is described. The powders involved were boron carbide, 18% ferroboron and ferroboral (14% B; 7.44% Si; 15.28% Al and the balance iron). Test pieces from 40 grade steel (0.38% C; 0.34% Si; 0.75% Mn; 0.08% Cr; 0.024% S; 0.029% P) measuring 5, 10, and 15 mm in diameter and 20 mm in length were ground, degreased with carbon tetrachloride, and placed in quartz pipes filled with boron-containing powder. The ends of the pipes were sealed off (one by soldering and the other with a heat-resistant paste). The effects of boronizing were then studied

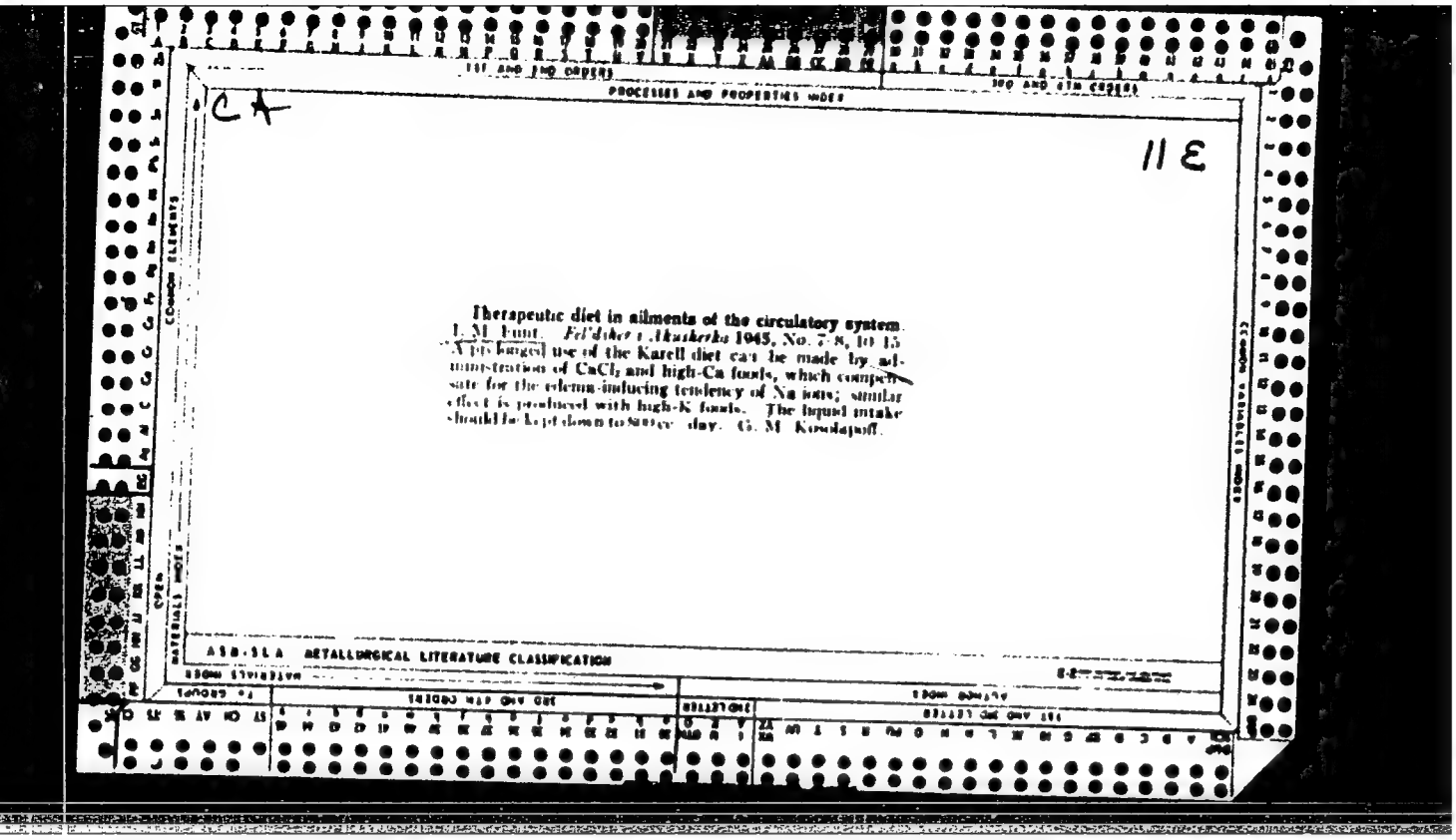
Card 1/2 UDC: 621.785.34:661.65

ACC NR: AP7002444

under various temperature conditions. The following was concluded: Ferroboron and ferroboral used as the powders for boronizing fail to provide an adequate degree of saturation: the boride layer formed did not exhibit sufficient wear-resistance but seemed, however, to have an increased resistance to corrosion and to high-temperature oxidation. It is found that boron carbide used as the boronizing powder provides a maximum degree of surface hardening and that the optimum conditions for boronizing are heating at 1000—1050C for 4—6 hr. Diagrams in the original text show 1) the depth of the boride layer as a function of temperature and time and 2) the effects of alloying elements on the depth of the layer boronized with various powders. Orig. art. has: 3 figures. [LD]

SUB CODE: 11/SUBM DATE: none/ORIG REF: 002/OTH REF: 001/

Card 2/2



FUNT, I. M.

"Significance of Gastroscopy in the Diagnosis of Certain Organic Ailments of the Stomach." Thesis for degree of Dr. Medical Sci. Sub. 6, Feb. 50, First Moscow Order of Lenin Medical Inst.

Summary 71, 4 Sep 52. Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

FUNT, I.M.

Gastroscopy, its clinical significance, methods of indication and contra-indication. Klin.med., Moskva no.3:24-33 Mr '50. (CLML 19:2)

1. Of the Second Department of Therapy (Director -- Prof. M.B.Kogan) of the Central Institute for the Advanced Training of Physicians of the Ministry of Public Health attached to the Moscow Order of Lenin Hospital imeni S.P.Botkin, Moscow.

FUNT, I.M.

FUNT, I. M.

Stomach in certain diseases of the gallbladder and liver. Ter. arkh. 22:4, July-Aug. 50. p. 50-4

1. Of the Faculty Therapeutic Clinic (Director—Prof. V. N. Vinogradov, Active Member of the Academy of Medical Sciences), First Moscow Order of Lenin Medical Institute.

CLML 19, 5, Nov., 1950

Gastr... Therapy and Prophylaxis) Moskva, 1953.
215 P. Illus., Ports.
"Literatura": P. 210-215.
At Head of Title: Russia. Ministerstvo Zdravookhraneniya.

SO: N/5
644.4
.F9

FUNT, I. M.

6838. Investigation of the functional state of the thyroid gland with iodine-131 at varying levels of circulatory failure. I. M. Funt and I. T. Kalyuzhnyi *Klin. Med.*, 1955, 33, 41—43; *Referat. Zh. Biol.*, 1956, Abstr. No. 87470.—The investigation of thyroid gland function using tracer doses of 2 μc ^{131}I showed that the ^{131}I uptake was raised in 14 out of 57 cases having cardiac defects or insufficiency of stages II and III (uptake at 24 hr. exceeding 30% of the dose).

The raised B.M.R. in circulatory disturbances may depend to some extent on thyroid hyperactivity. (Russian) J. E. S. Hawley

FUNT, I.M.

[Gastritis; clinical aspects, diagnosis, treatment and prophylaxis] Gastrity; klinika, diagnostika, terapiia i profilaktika. Frunze, "Kirgizgosizdat" 1957. 241 p. (MIRA 11:5)
(STOMACH--DISEASES)

USSR/Human and Animal Morphology - Pathological Anatomy. S

Abs Jour : Ref Zhur Biol., No 5, 1959, 21631

Author : Funt, I.M., Malyshev, B.F., Kalyuzhnyy, I.T.

Inst :

Title : Changes in Certain Internal Organs Under the Influence of Large Therapeutic Doses of a Radioactive Isotope

Orig Pub : Sov. zdravookhr. Kirgizii, 1957, No 5, 27-30

Abstract : After the subcutaneous injection of I^{131} in doses of 500-1500 millicuries into rabbits there is a disarrangement of the trabecular structure in the liver, there is a vacuolization of the cytoplasm of the liver cells, and a proliferation of the interlobular connective tissue; there are signs of marked irritation in the bone marrow; there is a disappearance of the lumen of the follicles, vacuolization of the cytoplasm of the cells of follicular epithelium in the

Card 1/2

Abs Jour : Ref Zhur Biol., No 5, 1959, 21631

thyroid gland. The presence of these changes causes us to limit the use of large doses of I^{131} even in the treatment of such serious diseases as carcinoma of the thyroid gland, nodular goiter and others. -- M.A. Khurges

FUNT, I.M., prof. (Moskva)

"Diseases of the intestines" by I.F. Lorie. Reviewed by I.M. Funt.
Terap. arkh. 30 no.10:79-82 O '58 (MIRA 11:11)
(INTESTINES--DISEASES)

FUNT, I.M.

Some problems in the nature and clinical aspects of decompensation in patients with organic heart defects. Sov.zdrav. Kirg. no.1:12-18 Ja-F '58. (MIRA 13:7)

1. Iz kafedry gospital'noy terapii (zav. - prof. I.M. Funt) Kirgizskogo gosmedinstituta.
(HEART--ABNORMITIES AND DEFORMITIES)

FUNT, I.M., prof.

Prevention of peptic ulcer. Zdorov'e 8 no.1:21-22 Ja '62.
(MIRA 15:3)
(PEPTIC ULCER)

BURCHINSKIY, G.I., prof.; BEYUL, Ye.A., kand. med. nauk;
VASILENKO, V.Kh., prof.; GUKASYAN, A.G., zasl. deyatel'
nauki, prof.; KARNAUKHOV, V.K., kand. med. nauk;
GUBERGRITS, A.Ya., prof.; LORIYE, I.F., prof.;
MEN'SHIKOV, F.K., prof.; PLOTNIKOV, N.N., prof.;
RABUKHINA, N.A., kand. med. nauk; RADBIL', O.S., prof.;
RYSS, S.M., prof.; SAL'MAN, M.M., kand. med. nauk;
SUKHININ, P.L., prof.; STEPANOV, P.N., prof.; FUNT, I.M.,
prof.; SHLAGUROV, A.A., prof.; TAREYEV, Ye.M., prof.,
otv. red.;

[Multivolume manual on internal diseases] Mnogotomnoe rukovodstvo po vnutrennim bolezniam. Moskva, Meditsina.
Vol.4. 1965. 667 p. (MIRA 18:1)

1. Deystvitel'nyy chlen AMN SSSR (for Tareyev, Vasilenko).
2. Chlen-korrespondent AMN SSSR (for Ryss).

FUNT', N.; LATYSHEV, V.; CHUDAKOVA, Ye, agronom; NAYDIN, P.G., professon.

Local placement of mineral fertilizers. Nauka i pered. op. v sel'khoz. 6 no.11:80-82 N '56. (MIRA 10:1)

1. Glavnyy agronom Bryanskoy mashinno-traktornoy stantsii (for Latyshev). (Fertilizers and manures)

FUNT S. M.

EXCERPTA MEDICA Sec.19 Vol.1/3 Cardiovascular Mar 57

638. FUNT S. M. and KALYNZHNII S. T. Dept. of Hosp. Ther., Kirghiz Med. Inst., Frunze, USSR *Study of the thyroid gland function in various degrees of deficient blood circulation (Russian text)* Klin. Med. (Mosk.) 1955, 33,6 (41—43)

The absorption of radioactive iodine by the thyroid gland was found to be raised in 13 out of 40 patients suffering from valvular disease and deficient blood circulation of the 1st and 2nd degree and in one patient out of 6 patients with a compensated valvular disease. In 6 patients with deficient blood circulation owing to atherosclerotic fibrosis of the myocardium and in 7 patients with valvular disease and deficient blood circulation of the 3rd degree, the absorption of I^{131} was normal. The authors conclude that: (1) the rise of the BMR often observed in patients with deficient blood circulation can in part of the cases depend on the hyperfunction of the thyroid gland; (2) the function of the thyroid gland in patients with a deficient blood circulation can be assessed more correctly by I^{131} than by the BMR test.

Raskin – Leningrad

FUNT, Ye.A., kand. tekhn. nauk

Ways of preventing gas leakages from underground coal gasification to the surface when burning-out coal seam areas lying close to the surface. Podzem. gaz. ugl. no.4:40-43 '58. (MIRA 11:12)

1.Gipropodzemgaz.
(Coal gasification, Underground)
(Mine filling)

FUNT, Ye.A.

Quarrying and complete utilization of building materials.
Sbor.trud.Inst.gor.dela AN URSR no.8:49-50 '61. (MIRA 15:2)
(Donetsk Province--Stone, Crushed)

FUNT, Ye.A., kand.tekhn.nauk; SHCHERBAKOVA, N.V., inzh.; BLOSHENKO, I.K., inzh.

Performance of the steel arch supports made from shaped sections in Donets Basin mines. Ugol' Ukr. 5 no.4:27 Ap '61. (MIRA 14:4)

(Donets Basin—Mine timbering)

TATOMIR, K.I.; FUNT, Ye.A.; BLOSHENKO, I.K.; SHCHERBAKOVA, N.V.

Cost of supporting development workings in the Donets Basin. Trudy Inst.gor.dela AN USSR no.11:106-111 '62. (MIRA 16:2)
(Donets Basin—Mine timbering—Costs)

TATOMIR, K.I.; FUNT, Ye.A.; BLOSHENKO, I.K.; ANDRUSHKO, V.F.; SAPRYKIN, V.N.

Cost of maintaining haulage drifts depending on the mining depth. Sbor. trud. Inst. gor. dela AN URSR no.13:138-143 '63
(MIRA 17:7)

16.3400 16.4600

S/020/60/132/04/12/064

AUTHOR: Funtakov, V.N.

TITLE: Expansion in Eigenfunctions of a Non-Selfadjoined Differential Operator of Arbitrary Even Order on the $[0,\infty)$ Half-Axis

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 4, pp. 777-780

TEXT: Let

(1) $$l(y) = y^{(2n)} + p_2(x)y^{(2n-2)} + p_3(x)y^{(2n-3)} + \ldots + p_{2n}(x)y,$$

where the $p_k(x)$ are complex-valued and summable in $[0,\infty)$. Let D be the set of all $y(x) \in L^2[0,\infty)$, for which 1) the $y^{(\nu)}(x)$, $\nu = 1,2,\ldots,2n-1$, are absolutely continuous in every $[0,b]$, $b>0$, and 2) $l(y) \in L^2[0,\infty)$. Let D_α be the set of functions $y(x) \in D$ which satisfy the boundary conditions

(2) $$u_\nu(y) = \alpha_{\nu 0}y(0) + \alpha_{\nu 1}y'(0) + \ldots + \alpha_{\nu,2n-1}y^{(2n-1)}(0) = 0, \quad \nu = 1,2,\ldots,n,$$

where $\alpha_{\nu k}$ are complex numbers. In D_α let the operator L_α be defined by

(3) $$L_\alpha y = l(y), \quad y \in D_\alpha .$$

The author gives the asymptotic behavior of the linearly independent solutions of the equation $l(y) = \lambda y$ holomorphic in a certain sense, if the

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FUNTAKOV, V.N.

Expansion into eigenfunctions of a non-self-conjugate differential operator of arbitrary even order on a [0, oo] semiaxis. Report No.2. Izv. AN Azerb. SSR. Ser. fiz.-mat. i tekh.nauk no.1:3-21 '61. (MIRA 14:4)

(Eigenfunctions) (Operators (Mathematics))
(Differential equations, Partial)

FUNTAKOV, V.N.

Expansion by eigenfunctions of a non-self-adjunct differential operator of arbitrary even order on the semiaxis [0, ∞].
Izv. AN Azerb. SSR. Ser. fiz.-mat. i tekh. nauk no.6:3-19 '60.
(MIRA 14:8)
(Eigenfunctions) (Operators (Mathematics))
(Differential equations)

38122
S/020/62/144/003/006/030
B112/B104

16.3400

AUTHOR: Funtakov, V. N.

TITLE: Expansion with respect to the eigenfunctions of a non-self-adjoint singular differential equation of the second order

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 3, 1962, 505-508

TEXT: The author investigates solutions $\omega_1(\lambda, x)$ and $\omega_2(\lambda, x)$ of the equation $-y'' + q(x)y = \lambda^2 y$ $(-\infty<x<\infty)$, which satisfy the conditions $\omega_1(\lambda, 0) = 1$, $\omega_1'(\lambda, 0) = 0$, $\omega_2(\lambda, 0) = 0$, $\omega_2'(\lambda, 0) = 1$. A similar problem has been studied by V. A. Marchenko (Matem. sborn., 52 (94), 2, 739 (1960)). In this paper, the results obtained by V. A. Marchenko are extended to the case in question. The method of V. A. Marchenko is applied.

ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut (Moscow Physico-technical Institute)

PRESENTED: January 12, 1962, by A. N. Kolmogorov, Academician

Card 1/2

S/658/62/000/009/012/013
A059/A126

AUTHOR: Funtakov, V.N.

TITLE: On the expansion in eigenfunctions of non-self-adjoint singular operators

SOURCE: Moscow. Fiziko-tekhnicheskiy institut. Trudy. no. 9, 1962. Issledovaniya po mekhanike i prikladnoy matematike. 144 - 160

/B

TEXT: Results obtained by M.A. Naymark (Trudy Moskovskogo matematicheskogo obshchestva, v. 3, GITTL, 1954, 181 - 271) are applied to the case of non-self-adjoint singular operators of any even order, which are determined for the whole axis $(-\infty, \infty)$. The differential equation

$$l(y) = \lambda(y); \qquad (2.1)$$

$\rho^{2n} = -\lambda$, $\omega_1, \omega_2, \ldots, \omega_{2n}$ are the 2n-th roots of -1, and S_k, $k = 1, \ldots, 2n$ are the sectors of the complex ρ-plane determined by the inequalities:

$$\frac{k\pi}{n} < \arg\rho < \frac{(k+1)\pi}{n}.$$

The solutions of the equation (2.1) for the ranges $[-\infty, 0]$ and $[0, \infty]$ are

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On the expansion in eigenfunctions of ... 3/012/62/000/009/012/013
A059/A126

calculated in the same way as in a paper [illegible] published by the author (DAN SSSR, v. 132, 1960, no. 4, 777 - 780). The [illegible]:

$$\tilde{y}_k^{(\nu)}(x, \rho) = \rho^\nu \omega_k^\nu e^{\rho\omega_k x}[1 + o(1)], \quad k = 2, 4, \ldots, 2n, \qquad (3.11a)$$

and

$$\tilde{y}_k^{(\nu)}(x, \rho) = \rho^\nu e^{\rho\omega_k x}\left[\omega_k^\nu - \frac{\tilde{A}_{k-1,k}(\rho)}{\tilde{A}_{k-1,k-1}(\rho)}\omega_{k-1}^\nu e^{\rho(\omega_{k-1}-\omega_k)x}\right][1 + o(1)],$$

$$k = 1, 3, \ldots, 2n - 1 \qquad (3.11b)$$

were found to hold for $x \to +\infty$, whereas the equations

$$\tilde{y}_k^{(\nu)}(x, \rho) = \frac{\rho^\nu e^{\rho\omega_k x}}{\tilde{A}_{k-1,k-1}(\rho)}\left[\tilde{A}_{kk}(\rho)\omega_k^\nu + \right.$$

$$\left. + \tilde{A}_{k+1,k}(\rho)\omega_{k+1}^\nu e^{\rho(\omega_{k+1}-\omega_k)x}\right][1 + o(1)], \quad k = 2, 4, \ldots, 2n; \qquad (3.12a)$$

and

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On the expansion in eigenfunctions of ....

$$\tilde{y}_k^{(n)}(x, \rho) = \frac{\tilde{A}_{kk}(\rho)}{\tilde{A}_{k-1,k-1}(\rho)} \rho^{\nu} e^{\rho\omega_k x} \omega_k^{\nu} [1 + o(1)], \quad k = 1, 3, \ldots, 2n - 1 \tag{3.12b}$$

were found to hold for $x \to -\infty$, both for even and uneven values of n. The resolvent was found to be:

$$R_\lambda f = \int_{-\infty}^{\infty} K(x, \xi, \lambda) f(\xi) d\xi. \tag{4.8}$$

The eigenfunction of the boundary condition is

$$\tilde{y}(x, b) = -\sum_{i=1}^{n-1} \frac{\tilde{u}_i}{\tilde{u}_b} \tilde{y}_i(x, \rho) + \tilde{y}_n(x, \rho) - \sum_{i=n+1}^{2n} \frac{\tilde{u}_i}{\tilde{u}_b} \tilde{y}_i(x, \rho), \tag{5.6}$$

If b is sufficiently large, to each point

$$\alpha_k^{(1)} = \frac{k\pi i}{b} + \frac{i}{2b} \omega_1 \left(\frac{k\pi i}{nb} \right) \tag{5.23a}$$

or

$$\alpha_k^{(2)} = \frac{k\pi i}{b} + \frac{i}{2b} \omega_2 \left(\frac{k\pi i}{nb} \right) \tag{5.23b}$$

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On the expansion in eigenfunctions of ....

in the region

$$|\mathrm{Re}\ \rho\omega_n| \leqslant \varepsilon, \quad \delta_1 \leqslant |\rho| \leqslant N - \delta_2, \quad \delta_1,\ \delta_2 > 0 \tag{5.29}$$

corresponds accurately one proper value of the auxiliary boundary problem. If the conditions

$$e^{\varepsilon|x|}|p_i(x)| \leqslant C_1, \quad x \in (-\infty, \infty), \quad i = 2, 3, \ldots, 2n, \tag{3.8}$$

$$\tilde{A}_{JJ}(\rho) \neq 0, \quad J = 1, \ldots, 2n, \tag{3.10}$$

and

$$\theta_{1,2}(\rho) \neq 0 \tag{7.1}$$

are fulfilled, and $K(x, \xi, \lambda)$ is the nucleus of the resolvent of the operator L, we have:

$$K(x, \xi, \lambda) = -\frac{\omega_n}{\pi i} \sum_{i=1,2} \int_{T_k} \frac{\tilde{y}^{(i)}(x, \rho)\, \tilde{y}^{(i)}(\xi, \rho)}{(\rho^{2n} + \lambda)\, \theta_i(\rho)}\, d\rho, \tag{7.2}$$

where

$$\tilde{y}^{(i)}(x, \rho) = \tilde{y}_n(x, \rho) - \frac{\tilde{A}_{nn}(\rho)\, \psi_i(\rho)\, \tilde{\Pi}_n}{\tilde{A}_{nn}(\rho)\, \tilde{\Pi}_{n+1} - \psi_i(\rho)\, \tilde{A}_{n,n+1}(\rho)\, \tilde{\Pi}_n}. \tag{7.3}$$

Card 4/5

If these conditions hold, and $g(x) \in \mathfrak{M}$ ($\mathfrak{M}$ being the totality of all functions $g(x)$), with $h(x)$ being any function summable in the range $(-\infty, \infty)$, the integral $\int_{-\infty}^{\infty} g(x)\, h(x)\, dx$ is absolutely convergent, and

$$\int_{-\infty}^{\infty} g(x)\, h(x)\, dx = \frac{\omega_n}{\pi i} \sum_{i=1,2} \int_{T_k} \frac{\alpha_i(\rho)\, \beta_i(\rho)}{\theta_i(\rho)}\, d\rho, \qquad (7.6)$$

where

$$\alpha_i(\rho) = \int_{-\infty}^{\infty} g(x)\, \tilde{y}^{(i)}(x, \rho)\, dx; \quad \beta_i(\rho) = \int_{-\infty}^{\infty} h(x)\, \tilde{y}^{(i)}(x, \rho)\, dx. \qquad (7.7)$$

Thanks are due to M.A. Naymark as the author's scientific instructor.

FUNTEK, M.

Physical effect of a lowered atmospheric pressure. p. 522.

VAZDUHOPLOVNI GLASNIK. (Jugoslovensko ratno vazduhoplovstvo) Zemun, Yugoslavia
Vol. 11, no. 4, July/Aug. 1955

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 9, Sept. 1959

Uncl.

JOVANOVIC, Mihailo, sanitetski potpukovnik, dr.; FUNTEK, Mihajlo, sanitetski pukovnik, dr.

The problem of otorhinolaryngological wounds in modern warfare. Vojnosanit. pregl. 20 no.1/2:43-52 Ja-F '63.

1. Vojna bolnica u Skoplju, Odeljenje za uvo, nos i grlo.
(OTORHINOLARYNGOLOGY) (WOUNDS, GUNSHOT)
(ATOMIC WARFARE) (WAR)

S

PUNTEK, Mihajlo, sanitetski pukovnik, dr.

Our experience with the organization of health services in destroyed Skoplje. Vojnosanit. pregl. 21 no.7-8:448-455, Jl-Ag '64

Funtikov, A.I.

83725

S/056/60/038/004/008/048
B019/B070

1.1210
24.4100

AUTHORS: Al'tshuler, L. V., Kormer, S. B., Brazhnik, M. I., Vladimirov, L. A., Speranskaya, M. P., Funtikov, A. I.

TITLE: The Isentropic Compressibility of Aluminum, Copper, Lead, and Iron at High Pressures

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 4, pp. 1061-1073

TEXT: New methods of investigation of the properties of materials at high pressures depend on the application of shock waves. Two parameters are determined: the velocity of propagation of the shock waves, and the particle velocity at the front, which enable the pressure and the density of the shock compression to be determined. Another important kinematic parameter is the velocity of sound in the shock compressed material. This quantity characterizes the velocity of propagation of small disturbances in the compressed material. These small disturbances are weak shock waves and discharge waves, and are of importance in geophysical and other similar investigations. In the present paper, a method is suggested for

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the measurement of the velocity of sound in the front of strong shock waves, and results of investigations for aluminum, lead, and iron for the pressures between $4\cdot10^5$ and $3.5\cdot10^6$ atm are given. In the first section a method of measuring the velocity of sound is given which depends on measurement with the discharge waves. In this method the decrease of pressure due to the superposition of the discharge and dilatation waves in the zone of the boundary of the sample in the form of a stepwise built cylinder is measured photochronographically. In the second section, elastic and plastic discharge waves are discussed. In the third part, a method of measurement is discussed in which the collision of a plate and a sample from a material of known dynamic adiabatics is studied. This method leads to an experimental determination of the trajectories of the shock waves, and to the measurement of the particle velocities at one or more points of these trajectories. In the fourth part, the data given in Tables 2, 3, 4, and 5 are discussed in detail. In the last two sections, the isentropic compressibility of the metals, and the upper limit of "cold" compression are studied on the basis of the results obtained here; and an estimate of the thermal energy and the temperature is made. In the present paper, the existence of two sound velocities corresponding to the

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elastic and plastic states of matter are established. The velocities of sound, and the isentropic compressibilities in the above mentioned pressure range, the estimates of thermal energies; the temperature of shock compression; and the Grüneisen coefficients are given in tables. Yu. N. Shustov is mentioned. The paper was started in 1948 on the initiative of Academician Ya. B. Zel'dovich. The Corresponding Member of the AS USSR Ye. I. Zababakhin is thanked for many valuable advices. K. K. Krupnikov, B. P. Lederev, and A. A. Bakanova are thanked for discussions. Professor V. A. Tsukerman and his colleagues Z. Sh. Model' and M. A. Kanunov helped in the constructional problems. Some data were obtained from V. A. Borodulin. N.S. Tenigin, A. E. Kolesnikova, L. P. Gorelova, and K. S. Shvetsov helped in the experimental work. There are 10 figures, 7 tables, and 5 references: 5 Soviet and 3 US.

SUBMITTED: October 7, 1959 (initially), January 3, 1960 (after revision)

Card 3/3

AL'TSHULER, L.V.; KORMER, S.B.; BAKANOVA, A.A.; PETRUNIN, A.P.; FUNTIKOV, A.I.; GUBKIN, A.A.

Irregular conditions of oblique collision of shock waves in solids. Zhur. eksp. i teor. fiz. 41 no.5:1382-1393 N '61. (MIRA 14:12)

(Shock waves)

35557
S/056/62/042/003/007/049
B104/B102

24.5300 18.8100

AUTHORS: Kormer, S. B., Funtikov, A. I., Urlin, V. D., Kolesnikova, A.N.

TITLE: Dynamic compression of porous metals and the equation of state with variable specific heat at high temperatures

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 3, 1962, 686 - 702

TEXT: The dynamic compression of Al, Cu, Pb, and Ni with relative densities between m = 1 and m = 4 ($m = \varrho_0/\varrho_{00}$, where ϱ_0 = density of the compact material, ϱ_{00} = density of the porous material) was studied in the pressure range of $0.7\cdot10^{12}$ - $9\cdot10^{12}$ dynes/cm^2. A polyempirical interpolated equation of state is developed which takes account of the specific heat variations and the density and temperature dependence of the Grüneisen coefficient

$$P = P_x(\rho) + \frac{3\gamma(\rho) + z(\rho, T)}{1 + z(\rho, T)}\rho R(T - \hat{T}) + g(\rho)\rho\frac{b^3}{\beta(\rho)}\ln\operatorname{ch}\frac{\beta(\rho)T}{b}, \quad (14)$$

$$E = E_x(\rho) + \frac{2 + z(\rho, T)}{1 + z(\rho, T)}\cdot\frac{3}{2}R(T - \hat{T}) + \frac{b^3}{\beta(\rho)}\ln\operatorname{ch}\frac{\beta(\rho)T}{b}. \quad (15).$$

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The equations of state of Mie-Grüneisen, and the equation of state with the electronic specific heat components, are special cases of (14), (15). Solid metals and metal vapors can be described by these equations of state. The shock adiabats calculated for metals of different densities are in good agreement with experimental data. The gas pressure and the lattice energy can be determined from the equation of state by a limiting process. The electronic analog of the Grüneisen coefficient is found for Cu and Ni, and estimated for Pb and Al. Symbols used in the equations: γ is the Grüneisen coefficient, $\beta(\varrho)$ the electronic specific capacity, $z = 1RT/c_x^2$, where 1 is a quantity to be determined experimentally.

K. K. Krupnikov, B. N. Ledenev, L. V. Al'tshuler, A. A. Bakanova, R. F. Trunin, V. N. Zharkov, V. A. Kalinin, and N. N. Kalitkin are mentioned. S. V. Yezhkov, G. M. Yesin, and V. I. Yefremov are thanked for assisting with experiments, Yu. A. Glagoleva and L. T. Popova for assisting with calculations, L. V. Al'tshuler, A. A. Bakanova, K. K. Krupnikov, and R. F. Trunin for discussions, and Ya. B. Zel'dovich, V. P. Kopyshev, Yu. P. Rayzer, and K. A. Semendyayev for consultations. There are 11 figures, 5 tables, and 22 references: 15 Soviet and 7 non-Soviet. The four most recent references to English-language publications

S/056/62/042/003/007/049
B104/B102

Dynamic compression of...

read as follows: R. G. McQueen, S. P. Marsh, J. Appl. Phys., 31, 1253, 1960; J. S. Dugdale, D. K. McDonald, Phys. Rev., 89, 832, 1953; J. J. Gilvarry, Phys. Rev., 96, 934, 944; 99, 550, 1955; Handbook of Chemistry and Physics, 37ed Chemical Rubber publishing Co. Cleveland, 1955 - 1956.

SUBMITTED: August 10, 1961

Card 3/3

L 13950-65 AS(mp)-2/AEDC(a)/ESD(gs)

ACCESSION NR: AP4047885 S/0056/64/047/004/1202/1213

AUTHOR: Kormer, S. B.; Sinitsyn, M. V.; Funtikov, A. I.; Urlin, V. D.; Blinov, A. V. B

TITLE: Investigation of the compressibility of five ionic compounds at pressures up to 5 Mb

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 4, 1964, 1202-1213

TOPIC TAGS: compression, high pressure, compressibility, ionic crystal

ABSTRACT: The dynamic compression of LiF, NaCl, KCl, KBr, and CsBr ionic crystals of normal and reduced density is investigated for a wide range of pressures, densities, and temperatures. The highest pressure attained was 5 Mb, and the maximum compression ratio (density/reduced density) was 3.4. The experimental data can be described by an equation of state in which the temperature change due to specific heat and the thermal excitation of electrons is taken into account.

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L 13950-65

ACCESSION NR: AP4047885

D

The data obtained indicate an anomalous behavior of NaCl, KCl, KBr, and LiF crystals during shock compression. For the first three crystals, density discontinuities were detected in the liquid state. It is suggested that this may be due to a change in the coordination number which occurs during the same length of time in which a shock wave is propagated along a sample. Orig. art. has: 7 figures, 4 tables, and 4 formulas.

ASSOCIATION: none

SUBMITTED:	18Apr64	ENCL:	00	SUB CODE:	SS, ME
NO REF SOV:	012	OTHER:	004	ATD PRESS:	3133

Card 2/2

L 61719-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) Pf-4 IJP(c)
ACCESSION NR: AP5017788 JD/HW UR/0387/65/000/005/0001/0003
550.311:539.89

AUTHORS: Kormer, S. B.; Funtikov, A. I.

TITLE: Impact compression of ferrosilicon and the possible composition of the earth's core

SOURCE: AN SSSR, Izvestiya. Fizika Zemli, no. 5, 1965, 1-3

TOPIC TAGS: high pressure, iron alloy, silicon alloy, earth core, impact testing

ABSTRACT: The impact compression of iron and silicon alloy has been investigated as possibly representing the composition of the earth's core. The material tested was industrial ferrosilicon with a composition of 81.3% Fe, 17.4% Si, and 1.1% C, representing a solid solution of silicon in alpha-iron with inclusions of graphite. The average specific gravity of the material was 6.91. Measurements of impact compression were made by reflection at the front of a shock wave. Velocities of the shock wave were determined, and the density under compression was computed at pressures ranging from 0.48 to 3.3 megabars. It was found that the velocity of sound waves computed for the ferrosilicon at 4000K and the appropriate pressure agrees with geophysical data somewhat better than the value for pure iron. It is

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L 61719-65

ACCESSION NR: AP5017788

suggested that an outer core of iron-silicon alloy with about 20% silicon therefore corresponds to most of the geophysical data on the properties of this outer core. Results of the present studies indicate that the light constituent in the alloy cannot exceed 20%. In a study of pyrite, containing 60% Fe (with a sp gr of 4.74), the density under impact compression proved to be only 8.9 g/cm^3 at 2.6 megabars, instead of 11.3 as required according to Bullen's calculations. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 16Nov64 ENCL: 00 SUB CODE: ES, ME

NO REF SOV: 008 OTHER: 006

Card 2/2

FUNTIKOV, A. P.

Windmills - Chkalov Province

Use of windmills on Chkalov Province collective farms. Sots. zhiv. 14 No. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

FUNTIKOV, B.A.

Adequatometry and discretometry of the human visual analyzer at different geographic latitudes. Nerv. sist.(Leningrad) 2 no.3:139-144 '62. (MIRA 17:7)

1. Kafedra biofiziki Fiziologicheskogo instituta imeni Ukhtomskogo Leningradskogo gosudarstvennogo universiteta.

FUNTIKOV, B.A.

Investigating the excitability of the human visual analyzer during rolling at sea. Vest. LGU 18 no.21:171-174 '63
(MIRA 16:12)

ACCESSION NR: AT4039716 S/3094/63/074/001/0116/0117

AUTHOR: Funtikov, B. A.

TITLE: A study of the excitability of the visual and auditory analyzers of man under different climatic conditions

SOURCE: Leningradskoye obshchestvo yestestvoispy*tateley. Trudy*, v. 74, no. 1, 1963. Protokoly* zasedaniy i soobshcheniya, 1961/62 g. (Transactions of conferences and reports), 116-117

TOPIC TAGS: visual excitability, auditory excitability, visual analyzer, auditory analyzer, audio sensitivity, visual acuity, climate, arctic physiology, tropical physiology, chronaxy, adequate optical rheobase

ABSTRACT: An investigation into the effect of various climatic conditions on audio and visual performance was made on the crew of a ship during passage through various geographical areas. Three series of experiments were performed in three years; each series involved 10-12 men, 20-25 years of age, most taking part in all three experiments. By using an optical adequatometer to measure the visual excitability and a sound frequency generator to measure the audio excitability, the authors showed that during the change from temperate to arctic and tropical conditions, there is usually a change in the adequate optical rheobase (AOR), as well as in threshold

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ACCESSION NR: AT4039716

time, including the adequate optical chronaxy. In some cases only the threshold time changed and in some cases only the AOR. In one case the threshold energy of the optical stimulus was 1.6 times higher in the tropics and 1.2 times lower in the arctic than in the temperate zones. Analogous results were obtained for the remaining individuals. The audio excitability changed in a somewhat different way than the visual excitability with a change in climate. The audio threshold was consistently lowest in the arctic and highest (2.5-3.5 db) in the tropics. Chronaxy and other time thresholds did not change in parallel with the intensity threshold, but the chronaxy was smallest in the tropics. In one individual, the chronaxy was 1.4 times longer and intensity threshold 3.1 times lower in the arctic than in the tropics. These data indicate the high excitability of the audio analyzer in the arctic as compared with the temperate and tropical areas. The changes in excitability were not accompanied by any other physiological changes, with the exception of a slight hyperthermia (37.1-37.2C) and a slight decrease in the blood pressure (5-10 mm Hg) in the tropics. The changes in excitability occurred soon after the change in climate and persisted for the duration of stay in the area.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 12Jun64	ENCL: 00
Card 2/2 SUB CODE: LS	NO REF SOV: 000	OTHER: 000

FUNTIKOV, B.A.

Investigation of the excitability of the visual and auditory analysors of man under various climatic conditions. Trudy Len. ob-va est. 74 no. 1:116-117 '63. (MIRA 17:9)

FUNTIKOV, B.A.

Adequatometric research on the human visual and auditory analyzers during the process of adaptation to climatic conditions. Fiziol. zhur. 49 no.9:1044-1049 S '63.

(MIRA 17:12)

1. Kafedra biofiziki Gosudarstvennogo universiteta A.A. Zhanova, Leningrad.

FUNTIKOV, B.A.

Adequatometry of the visual analyser in man under the general influence of high and low temperatures. Vest. LGU 19 no.21: 155-158 '64 (MIRA 18:1)

SHELEPIN, M.N.; PAUK, M.Ya.; EUNTIKOV, V.Z.; VARLAMOV, S.S.; SLIN'KO, A.G.; TOMLENOV, V.K.; ZAGNIYEV, V.M.

Saving of power in a compressor station. Prom.energ. 17 no.7:6 Jl '62. (MIRA 15:7)
(Compressed air) (Compressors)

L 61816-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4/Ps-4 JAJ/RM/GW

ACCESSION NR: AP5018426 UR/0190/65/007/007/1171/1172
678.01:544+678.746

AUTHOR: Karyakin, A. V.; Funtikova, A. I.

TITLE: Photodegradation of polystyrene

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 7, 1965, 1171-1172

TOPIC TAGS: polystyrene photodegradation, ultraviolet irradiation, oxidation inhibition

ABSTRACT: The object of the work was to determine the effect of ultraviolet radiation on the degradation of polystyrene and to refine the mechanism of the processes involved by use of infrared spectroscopy. Measurements in the IR region (see Fig. 1 of the Enclosure) were made at 400-4000 cm^{-1}, and in the UV region, at 220-800 mμ, using transparent, homogeneous films 70-80 μ thick prepared from a 10% solution of polystyrene in benzene. The data showed that UV irradiation induces photodegradation processes, and consequently stabilizing agents should be introduced into polystyrene. The stabilizing effect of various inhibitors of oxidizing processes and the effect of luminescent substances used as stabilizers of polymers were determined

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L 61846-65

ACCESSION NR: AP5018426

from the ratio of the optical density of the irradiated film sample (D_{irr}) to the optical density of the nonirradiated sample (D_{nonirr}) for the 1745 cm^{-1} absorption band. The strongest stabilizing effect was displayed by benzophenone derivatives, which have a very high absorption coefficient in the ultraviolet (at 200-400 mμ). Resorcinol dibenzoate, 2-hydroxy-4-alkoxybenzophenone, 4-methoxy-o-hydroxybenzophenone, resorcinol disalicylate, and 2-hydroxy-4-methoxybenzophenone were found to be the best stabilizers for polystyrene exposed to ultraviolet radiation. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR (Institute of Geochemistry and Analytical Chemistry, AN SSSR)

SUBMITTED: 28Jul64 ENCL: 01 SUB CODE: GC, OP

NO REF SOV: 001 OTHER: 000

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L 61846-65

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ENCLOSURE: 01

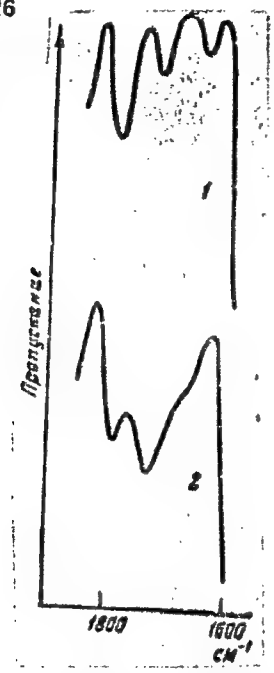

Fig. 1. IR absorption spectra of polystyrene: 1 - before irradiation; 2 - after 20-hr irradiation

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FUNTIKOVA, G.D.

From the inspection work practices in Latvia. Zashch. rast. ot vred. i bol. 8 no.8:49 Ag '63. (MIRA 16:10)

1. Nachal'nik Latviyskoy karantinnoy inspektsii.

ROMANENKO, I.; PLETNEVA,G., metodist; FUNTIKOVA, K., metodist

Exhibitions of special items. Inform. biul. VDNKH no.10:
34-36 O '64 (MIRA 18:1)

1. Glavnyy metodist pavil'ona "Zdravookhraneniya i meditsinskaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Romanenko). 2. Pavil'on "Sovetskaya kul'tura" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Pletneva). 3. Pavil'on "Obrazovaniye" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Funtikova).

S/072/60/000/009/008/009/XX
B021/B058

AUTHORS: Dubova, O. A., Begel'fer, K. I., Sazonova, P. A., Funtikova, K. M.

TITLE: Complexometric Determination of Aluminum in High-alumina Materials

PERIODICAL: Steklo i keramika, 1960, No. 9, pp. 43-44

TEXT: The content of aluminum oxide in aluminous raw materials has so far been gravimetrically determined in the laboratory. This method is, however, time-consuming and does not permit a quick sorting of the incoming raw material. In order to speed up analysis, the works laboratory used the method of accelerated complexometric titration Al_2O_3 in aluminous raw materials and refractories. In order to prove the suitability of this method, a series of comparative analyses of Al_2O_3 were made by the gravimetric and complexometric method, and are tabulated. These data show the sufficient accuracy of the complexometric method. The method proposed here is described next in detail. Trilon was used as a reagent. There are

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BEGEL'FER, K.I.; SAZONOVA, P.A.; FUNTIKOVA, K.M.

Rapid EDTA method of separate determination of the oxides Fe_2O_3 and Al_2O_3 in materials containing aluminum. Stek.i ker. 19 no.4:30-31 Ap '62. (MIRA 15:8)

1. Lisichanskiy stekol'nyy zavod.
(Acetic acid) (Iron oxides) (Aluminum oxides)

FUNTIKOVA, K.M.; SAZONOVA, P.A.; BEGEL'FER, K.I.

Rapid determination of iron oxides and aluminum in sand. Stek. i ker. 20 no.10:40-41 O '63. (MIRA 16:10)

(Sand, Glass--Analysis) (Iron oxides--Analysis)
(Aluminum--Analysis)

GAPCHENKO, P.K.; MALYUKH, Z.M.; PLATONOV, M.I.; OREL-KRAYUSHKIN, V.S.; KUNTIKOVA, K.P.; KRYUKOV, V.L., redaktor; PAVLOVA, M.M., tekhnicheskiy redaktor

["Collective farm building" pavilion; a guidebook] Pavil'on "Postroiki kolkhoznogo sela"; putevoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 26 p. (MLRA 9:10)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Direktor pavil'onov (for Platonov)
(Moscow--Farm buildings--Exhibitions)

ROMANENKO, I.A.; BRUSKIN, Ye.I., metodist; FUNTIKOVA, K.F., metodist

Exhibitions of special items. Inform.biul.VDNKH no.5:33-35 My '64.
(MIRA 18:5)

1. Glavnyy metodist pavil'ona "Zdravookhraneniye i meditsinskaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva (for Romanenko). 2. Pavil'on "Obrazovaniye" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Bruskin, Funtikova).

L 42470-65 EEC-2/EWT(d)/FSS-2/EEC-4/EEC(t)/EED-2 Pn-4/Pp-4/Pac-4
ACCESSION NR: AP5006635 S/0146/65/008/001/0055/0061

AUTHOR: Funtov, N. M.; Smirnov, G. V.; Petrov, Ye. A.; Osipov, Yu. M.

TITLE: Comparison of several methods of converting a single electrical signal into a series of discrete values

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 1, 1965, 55-61

TOPIC TAGS: signal conversion, continuous discrete signal conversion

ABSTRACT: In converting a single continuous signal into a series of discrete signals, it is essential to know the error that accompanies the conversion. The errors inherent to these methods are theoretically compared: (1) Conversion of voltage into a proportional time interval; (2) Use of a number of discrete levels of the comparison voltage (includes PAM); (3) Use of a number of comparison voltages proportional to the weight of binary positions. It is found that the first method requires only one-half or less the equipment necessary for the other

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ACCESSION NR: AP5006635

methods; however, it is slow and only applicable for coding signals of a few milliseconds' duration. The second method does not provide high accuracy and is suitable for recording signals of a few dozen microsecond duration. The third method is suitable for those applications where the signal is of hundreds of microsecond duration, high accuracy is not required, and the signal dynamic range is not large. Orig. art. has: 4 figures and 12 formulas.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Fine Mechanics and Optics)

SUBMITTED: 02Dec63 ENCL: 00 SUB CODE: DP

NO REF SOV: 001 OTHER: 000

Card 2/2

FUNTIKOVA, V.I.

USSR/Chemical Technology - Chemical Products and Their Application. Food Industry. I-13

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2966

Author : Ivanina, T.F., Funtikova, V.I.

Inst : Moscow Technological Institute of the Meat and Dairy Industry

Title : Use of the Method of Tagged Atoms for Determining the Solubility of Tin in Milk and Dairy Products.

Orig Pub : Sb. stud. rabot Mosk. tekhnol. in-t myas. i moloch. prom-sti, 1956, No 4, 46-51

Abstract : Brass plates 1 cm^2 in size, coated with fused radioisotope of tin, were immersed in various dairy products (25 ml of each), namely: fresh milk, whey separated from cheese, cream, condensed milk with added sugar, and memted cheese (the cheese was cut in 1 cm^3 pieces which were placed on

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USSR/Chemical Technology - Chemical Products and Their Application. Food Industry. I-13

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2966

the plates). Control media were distilled water and 0.1 N lactic acid. The plates were allowed to remain in the product for 3-4 days, at about 20°. The amount of tin that passed into the product was determined with a Geiger-Muller counter, at intervals of 4 hours during the first 24 hours and every 12 hours thereafter. Tin dissolves at a highest rate in melted cheese, less so in the whey and only very little in fresh milk. By the method of tagged atoms it is possible to determine 15 mg Sn in 1 liter of a solution.

Card 2/2

FUNTOV, N.M., dots.; PEVZNER, Ye.M.;

[Study of the properties of single-phase and three-phase sine wave current; laboratory manual] Issledovanie svoistv odnofaznykh i trekhfaznykh tsepei sinusoidal'nogo toka; rukovodstvo dlia laboratornykh rabot. Leningrad, 1962. 51 p. (MIRA 17:5)

1. Leningrad. Leningradskiy institut tochnoy mekhaniki i optiki. Kafedra teoreticheskikh osnov elektrotekhniki.

OSIPOV, Yuriy, Mikhaylovich, assistent; PEVZNER, Yevsey Markovich, starshiy prepodavatel'; PRYANISHNIKOV, Viktor Alekseyevich; FUNTOV, Nikolay Mikhaylovich, kand. tekhn. nauk, dotsent

Parallel operation of impulse lamps. Izv. vys. ucheb. zav.; elektromekh. 6 no.10:1157-1160 '63. (MIRA 17:1)

1. Kafedra teoreticheskikh osnov elektrotekhniki Leningradskogo instituta tochnoy mekhaniki i optiki (for Osipov, Pevzner). 2. Starshiy inzhener kafedry teoreticheskikh osnov elektrotekhniki Leningradskogo instituta tochnoy mekhaniki i optiki (for Pryanishnikov). 3. Zaveduyushchiy kafedroy teoreticheskikh osnov elektrotekhniki Leningradskogo instituta tochnoy mekhaniki i optiki (for Funtov).

OSIPOV, Yu.M., inzh.; PEVZNER, Ye.M., inzh.; PRYANISHNIKOV, V.N., inzh.; FUNTOV, N.M., inzh.

Impulse-type lighting system. Svetotekhnika 9 no.6:28-29 Je '63. (MIRA 16:6)

1. Leningradskiy institut tochnoy mekhaniki i optiki.
(Electric lighting)
(Photography—Electric equipment)

[redacted], V.A.; FUNTOV, Yu.Ye.

Comparative analysis of technical and economic indices of open-hearth furnace plants with 500- and 250-ton furnaces. Izv.vys. ucheb.zav.; chern.met. 5 no.11:202-208 '62. (MIRA 15:12)

1. Moskovskiy institut stali i splavov.
(Open-hearth furnaces—Cost of operation)

ROMENETS, V.A., kand.tekhn.nauk; FUNTOV, Yu.Ye., inzh.

Comparison of performance figures of 500-ton open-hearth furnaces in two plants. Stal' 22 no.9:795-796 S '62. (MIRA 15:11)

1. Moskovskiy institut stali.
(Open-hearth furnaces)

ROMENETS, V.A., kand.tekhn.nauk; FUNTOV, Yu.Ye., inzh.

Cost of steel made in a 500-ton open-hearth furnace. Stal' 23 no.4:369-371 Ap '63. (MIRA 16:4)

1. Moskovskiy institut stali i splavov.
(Open-hearth process—Costs)

ROMENETS, V.A.; FUNTOV, Yu.Ye.

Effect of the capacity of open hearth furnaces on their yearly output. Izv. vys. ucheb. zav.; chern. met. 7 no.12:168-172 '64
(MIRA 18:1)

1. Moskovskiy institut stali i splavov i Sibirskiy metallurgicheskiy institut.

ROMENETS, V.A., kand. tekhn. nauk; FUNTOV, Yu.Ye., inzh.

Capacity of open-hearth furnaces and their economic indices.
Stal' 24 no.8:741-745 Ag '64. (MIRA 17:9)

FUNTOVA, I.F.

Approximate methods for computing the critical frequencies of wave guides. Uch.zap.MGPI 88:67-75 '54. (MLRA 10:2)
(Wave guides)